

REMARKS

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 29-31 and 34-36 are pending in this application. Claims 29-31 and 34 are amended; claims 35 and 36 are added; claim 28 is cancelled without prejudice.

Support for “nucleotides 286 to 487 of SEQ ID NO:6”, as recited in claims 30 and 34, can be found in original claims 18, 21, 24 and 25. Support for “contiguous” in claim 34 can be found on page 11, line 5, of the specification. Claims 29 and 31 were amended only to correct dependence. Support for added claims 35 and 36 can be found throughout the specification.

No new matter is added by this amendment.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art, and that these claims are and were in full compliance with the requirements of 35 U.S.C. §112. The amendments of and additions to the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Furthermore, it is explicitly stated that the herewith amendments should not give rise to any estoppel, as the herewith amendments are not narrowing amendments.

II. THE REJECTION UNDER 35 U.S.C. §112, 1ST PARAGRAPH, IS OVERCOME

Claims 28-31 and 34 were rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking adequate written description. Claim 28 has been cancelled. In as far as the rejection still applies to the claims as amended, the rejection is traversed.

In making this rejection, the Office Action states that the claims are overly broad for several reasons, the first of which being that the primers are identified as being “complementary” to specific sequences but, in light of the specification, could contain sequences not fully complementary to the recited portions of SEQ ID NOS:6, 10 or 1. Independent claim 34 has been amended to clarify that the primers have the sequence of 15 to 30 contiguous nucleotides within the recited nucleotide sequence or its complement.

The Office Action also objected to the recitation “can be amplified” because a DNA molecule that is larger than a fragment amplified by the primers “can” be amplified by the specific primers, and as such, the claims read on “any nucleic acid molecule having undisclosed

sequences on either [side] of the flanking primers.” To expedite prosecution, claim 34 has been amended to recite the language courteously suggested by the Examiner. The remaining claims are either dependent on claim 34 or no longer recite the objected language.

A concern raised in the Office Action is the possibility of non-specific amplification from PCR, which would yield undisclosed non-specifically amplified DNA fragments allegedly encompassed by the claims. Claim 34 has been amended to specify that the DNA molecule obtained by the process must comprise the nucleotide sequence of SEQ ID NO:6 from position 286 to position 487, or the nucleotide sequence of SEQ ID NO:10. Both of these nucleotide sequences include the region where inserted foreign DNA abuts plant genomic DNA and are thus diagnostic for the presence of elite event GAT ZM1 in corn. Non-specifically amplified DNA fragments simply would not contain the recited nucleotide sequences.

Further, the Office Action alleges that the full sequence of GAT-ZM1 is not disclosed in the specification, and that, from the disclosure in the specification, it appears that foreign DNA flanked by plant DNA sequences in SEQ ID NOS:6 and 10 can contain rearranged plant DNA sequences whose sequences had not been taught by the specification. As the Examiner will realize, for PCR amplification using first and second primers based on fully disclosed sequences, it is immaterial whether DNA outside the amplified and characterized sequence could contain rearranged plant sequences.

Additionally, the Examiner has pointed to genetic variability that exists in corn, which could result in substantial variability of the amplified DNA fragments. Applicant agrees that corn exhibits genetic variability, but not with regard to the elite-event GAT-ZM1. Indeed, GAT-ZM1 can be introduced in each corn plant or variety by classical recurrent breeding techniques. However, due to a phenomenon called "linkage drag", such breeding techniques will result in the introduction of the originally introduced foreign DNA, as well as the immediately flanking plant DNA sequences. By recurrent breeding, it is not possible to separate the foreign DNA from the immediately flanking DNA sequences. In other words, any corn variety comprising elite event GAT-ZM1 would still contain the same nucleotide sequence as the GAT-ZM1, including the immediate flanking DNA sequences.

In conclusion, although the claims admittedly encompass a large number of DNA molecules, the genus is limited to DNA molecules whose structure a person of ordinary skill in

the art could ascertain on the basis of the provided DNA sequences of SEQ ID NOS:6 and 10. New claim 35 provides an alternative description of the claimed genus of DNA fragments based on the nucleotide sequence of SEQ ID NO:6. The claim encompasses any DNA fragment having a nucleotide sequence that starts between nucleotide 1 or 286 and ends between nucleotide 487 and the end of the nucleotide sequence of SEQ ID No 6. Although it may be time-consuming, a person of ordinary skill could easily draw out the nucleotide sequence of each and every of those DNA fragments, diagnostic for the presence of elite event GAT-ZM1 in a corn plant.

In view of the foregoing, reconsideration and withdrawal of the rejection under the first paragraph of Section 112 are requested.

III. THE REJECTION UNDER 35 U.S.C. §112, 2ND PARAGRAPH, IS OVERCOME

Claims 28-31 and 34 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Claim 34 has been amended as suggested by the Examiner on page 9 of the Office Action to overcome this rejection. The Examiner is thanked for her helpful suggestion. Reconsideration and withdrawal of the rejection under the second paragraph of Section 112 are requested.

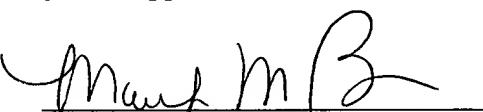
CONCLUSION

Applicants believe that the application is in condition for allowance, and favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. If the Examiner would benefit from further clarification, she is invited and encouraged to contact the undersigned prior to the issuance of any further action.

Respectfully submitted,

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